

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Cancelled).

2. (Currently Amended) A plasma processing apparatus for processing a substrate, comprising:

 a process chamber, comprising:

 a wall defining part of the process chamber;

 a device for igniting and sustaining within the process chamber a plasma for said processing; and

 a plasma confinement arrangement, comprising a magnetic array having a plurality of magnetic elements that are disposed within said process chamber, said plurality of magnetic elements being configured to produce a magnetic field, and wherein said plurality of magnetic elements are disposed around and extend along said plasma region, and wherein said magnetic elements are within said plasma region, wherein the wall surrounds the magnetic elements and the plasma region so that plasma is able to form plasma deposition on the wall, and wherein the magnetic field produced by the a magnetic elements reduces plasma deposition on the wall.

3. (Currently Amended) The apparatus, as recited in claim 2, wherein each of said plurality of magnetic elements extend substantially from a first end of said process chamber to a chuck.

4. (Original) The apparatus, as recited in claim 3, wherein said magnetic field has an azimuthally symmetric radial gradient.

5. (Original) The apparatus, as recited in claim 4, wherein each magnetic element has a physical axis which extends along the plasma region.

6. (Original) The apparatus, as recited in claim 5, wherein each magnetic element has a magnetic axis which is substantially perpendicular to the physical axis.

7. (Original) The apparatus, as recited in claim 5, wherein said magnetic elements are permanent magnets.

8. (Cancelled).

9. (Original) The apparatus, as recited in claim 5, wherein said magnetic elements are individually contained within sleeves.

10. (Original) The apparatus, as recited in claim 5, wherein at least one of said magnetic elements is moved so that said magnetic field shifts over time.

11. (Original) The apparatus, as recited in claim 5, wherein said magnetic elements are rotated.

12. (Original) The apparatus, as recited in claim 2, wherein said magnetic elements are permanent magnets.

13. (Previously Amended) The apparatus, as recited in claim 9, wherein said sleeves shield said magnetic elements from plasma.

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14. (Original) The apparatus, as recited in claim 2, wherein said magnetic elements are individually contained within sleeves.

15. (Original) The apparatus, as recited in claim 2, wherein at least one of said magnetic elements is moved so that said magnetic field shifts over time.

16-25 (Cancelled).

26. (Previously Amended) The apparatus, as recited in claim 2, wherein at least one magnetic element extends substantially from a first end of said process chamber to a chuck.

27. (Previously Added) The apparatus, as recited in claim 26, wherein the plurality of

magnetic elements are disposed around and outside the periphery of the substrate.

28. (Previously Added) The apparatus, as recited in claim 26, wherein the magnet elements are placed to create a minimum magnetic field at the substrate.

29. (Previously Amended) The apparatus, as recited in claim 2, wherein the plasma is able to fill the entire process chamber in which the magnetic elements are disposed.

30. (New) The apparatus, as recited in claim 2, wherein the process chamber is substantially cylindrical shape and the wall forms a side of the substantially cylindrical shape, further comprising a substrate holder a bottom of the substantially cylindrical shape, wherein the wall extends from a top of the substantially cylindrical shape to the bottom of the substantially cylindrical shape.

31. (New) The apparatus, as recited in claim 30, wherein each of the plurality of magnetic elements extend substantially from the top of the substantially cylindrical shape to the bottom of the substantially cylindrical shape.

32. (New) The apparatus, as recited in claim 31, further comprising a dielectric window at the top of the substantially cylindrical shape.